Revamped EV Programs & FY22-24 Vehicle Budget

August 10, 2020
Agenda

1. New EV program recap
2. Used EV program
3. Budget request (FY21-24)
High-Level Roadmap: Transportation

2018 | 2019 | 2020 | 2021

TRANSPORTATION ELECTRIFICATION

Current
- EV Ride & Drive Campaign (hiatus)
- New EV Incentive Program
- Low Income Used EV Program
- EV Ready (EV Charging Infrastructure Program)

Pilots
- Smart Charging
- Low Power Charging

Forthcoming
- Ride-Hailing Electrification
- Curbside Charging Pilot
- Municipal Fleets
Recap 2020 New EV Incentive

Objectives
• Draw more likely adopters to choose EVs late in the sales cycle
• Increase overall awareness of EVs through county-wide marketing
• Revised to increase uptake and support “additionality”

Overview
• 4th quarter promotion period
• For in-county and out-of-county purchases
• For vehicles with a purchase price of under $45,000
• Targeted to “first time” EV buyers and past PCE EV incentive recipients will be ineligible for another incentive
• Available for purchases, not leases
• Available as post-purchase rebates mailed directly to the customer
Context for Used EV program

• Used vehicle market roughly 1.5 - 3x the size of new vehicle market
• Likely more people buying used cars in downturn
• No general incentives available for used EVs
• Peninsula Family Svc (low inc admin) contract expiring Feb 2021
# Used EVs Approach

<table>
<thead>
<tr>
<th>Overview &amp; additions</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Low income only (DriveForward Electric)</td>
</tr>
<tr>
<td></td>
<td>• Year round</td>
</tr>
<tr>
<td></td>
<td>• Any dealership ok</td>
</tr>
<tr>
<td></td>
<td>• Partnered with Peninsula Family Svc to administer</td>
</tr>
</tbody>
</table>

| Incentives | PHEV & BEV: $2,000 if stacking (AQMD, CVAP) OR $4,000 if not |
|            | Base PHEV: $700                                             |
|            | Base BEV: $1,000                                            |
|            | Low inc: add $1,000 if stacking OR $3,000 if not           |

<table>
<thead>
<tr>
<th>Uptake</th>
<th>To date (1 1/4 yrs): 58</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Budget</th>
<th>To date: $169k</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Admin: $50k</td>
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</tbody>
</table>

*Exception: Peninsula Family Service (PFS) loan recipients point of sale
Peninsula Family Svc partnership shift

**Within scope**
- Continues referral of their program participants to PCE program
- Could pay PCE incentive to their loan participants directly so it could be point of sale (and we pay them back)

**Removed from scope**
- Screen all interest forms and manage applications for overall program
- Education of EVs and other programs
- Income verification on non-PFS loan recipients
Summary of Proposal

**Program**: Revamped vehicle incentive programs for new & used EVs (includes low income)

**Requests**

A. Revised program design effective CY21
B. Approval of $4.7 M over 3-years (FY22-24)
   - Budget is within approved & forecasted budgets
   - Net new funds: $3.82M
   - Includes reallocations of unused funds
     - New EV: $480k
     - Low Income: $200k
     - Ride & drive*: $200k

*For Ride & Drive, assumes FY21-22 returns to a “normal” event level
# Approx. FY 22-24 budget breakdown

<table>
<thead>
<tr>
<th>Program</th>
<th>Budget 3-yr total</th>
<th>Vehicle Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>New EV</td>
<td>$2,060,000</td>
<td>~2,200</td>
</tr>
<tr>
<td>Used EV – general</td>
<td>$1,400,000</td>
<td>~1,800</td>
</tr>
<tr>
<td>Used EV – low inc</td>
<td>$850,000</td>
<td>~300</td>
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<tr>
<td>Admin</td>
<td>$180,000</td>
<td></td>
</tr>
<tr>
<td>Marketing*</td>
<td>$210,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$4,700,000</td>
<td>~4,100</td>
</tr>
</tbody>
</table>

*To be discussed with marketing, could be shifted to incentives.
# Approved Vehicle Funds

As of June 30, 2020

<table>
<thead>
<tr>
<th>Community Energy Programs Approved by Board</th>
<th>Proposed Program</th>
<th>Program Amount Approved by Board</th>
<th>Board Approval Date</th>
<th>Term</th>
<th>Already Spent as of July 1, 2020</th>
<th>Estimated Spending in Current FY (prior to June 30, 2021)</th>
<th>Future Fiscal Year Spending for Approved and Proposed EV Programs (FY22-24)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approved by the Board</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>New EV Incentives</td>
<td></td>
<td>1,500,000</td>
<td>04/27/19</td>
<td>3 years</td>
<td>220,000</td>
<td>800,000</td>
<td>480,000</td>
</tr>
<tr>
<td>Low Income Used EV - Contract with Peninsula Family Services</td>
<td></td>
<td>500,000</td>
<td>01/24/19</td>
<td>2 years</td>
<td>220,000</td>
<td>80,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Ride &amp; Drive EV Marketing - Contract with Reach Strategies</td>
<td></td>
<td>750,000</td>
<td>02/28/19</td>
<td>3 years</td>
<td>215,000</td>
<td>50,000</td>
<td>485,000</td>
</tr>
<tr>
<td><strong>Approved Vehicle Incentives &amp; Engagement Programs</strong></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>2,750,000</td>
<td></td>
<td></td>
<td>655,000</td>
<td>930,000</td>
<td>1,165,000</td>
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<tr>
<td><strong>Updated New and Used EV Incentives</strong></td>
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<td>4,700,000</td>
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<tr>
<td>Reallocated Funds from New EV Incentives</td>
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<td>(480,000)</td>
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<tr>
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<td>(200,000)</td>
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<tr>
<td>Reallocated Funds from Ride &amp; Drive EV Marketing</td>
<td></td>
<td>(200,000)</td>
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<td></td>
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<tr>
<td>Requested New Funds</td>
<td></td>
<td>3,820,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,820,000</td>
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<tr>
<td><strong>Approved and Proposed Vehicle Incentives &amp; Engagement Programs</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>655,000</td>
<td>930,000</td>
<td>4,985,000</td>
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</tbody>
</table>
Backup slides
## Full Programs Budget

As of June 30, 2020

<table>
<thead>
<tr>
<th>Community Energy Programs Approved by Board</th>
<th>Proposed Program</th>
<th>Program Amount Approved by Board</th>
<th>Board Approval Date</th>
<th>Term</th>
<th>Already Spent as of July 1, 2020</th>
<th>Estimated Spending in Current FY (prior to June 30, 2021)</th>
<th>Future Fiscal Year Spending for Approved and Proposed EV Programs (FY22-24)</th>
</tr>
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<tbody>
<tr>
<td><strong>Approved by the Board</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New EV Incentives</td>
<td>1,500,000</td>
<td>04/27/19</td>
<td>3 years</td>
<td>220,000</td>
<td>800,000</td>
<td>480,000</td>
<td></td>
</tr>
<tr>
<td>Low Income Used EV - Contract with Peninsula Family Services</td>
<td>500,000</td>
<td>01/24/19</td>
<td>2 years</td>
<td>220,000</td>
<td>80,000</td>
<td>200,000</td>
<td></td>
</tr>
<tr>
<td>Ride &amp; Drive EV Marketing - Contract with Reach Strategies</td>
<td>750,000</td>
<td>02/28/19</td>
<td>3 years</td>
<td>215,000</td>
<td>50,000</td>
<td>485,000</td>
<td></td>
</tr>
<tr>
<td><strong>Approved Vehicle Incentives &amp; Engagement Programs</strong></td>
<td>2,750,000</td>
<td></td>
<td></td>
<td>655,000</td>
<td>930,000</td>
<td>1,165,000</td>
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<tr>
<td><strong>Other Approved Programs (Buildings, EV Charging)</strong></td>
<td>24,145,000</td>
<td></td>
<td></td>
<td>306,000</td>
<td>6,430,000</td>
<td>17,509,000</td>
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<tr>
<td>Updated New and Used EV Incentives</td>
<td>4,700,000</td>
<td></td>
<td></td>
<td>961,000</td>
<td>7,360,000</td>
<td>22,494,000</td>
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<tr>
<td>Reallocated Funds (from New EV, Low Income and Ride &amp; Drive)</td>
<td>(880,000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requested New Funds</td>
<td>3,820,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,820,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total Approved and Proposed Programs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,761,000</td>
<td>24,494,000</td>
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<tr>
<td>Not Yet Authorized (Future Programs)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,761,000</td>
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<tr>
<td>Community Energy Programs Budget</td>
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<td></td>
<td></td>
<td></td>
<td>7,550,000</td>
<td>32,255,000</td>
</tr>
</tbody>
</table>

Does not include DER or Marketing programs (Resilience, Building Electrification Awareness)
Used EV Administrator Role

1. Outreach

2. Interest form screening
   • If not low income, simply email application steps
   • If low income, see #3

3. Low income support & EV education
   • Other programs education & referrals
   • EV education

4. Application review
   • Includes income verification for low inc only if not stacking w other prgm

5. Customer rebate payment
2018/2019 New EV Incentive Recap

Objectives
• Draw more likely adopters to choose EVs late in the sales cycle
• Increase overall awareness of EVs through county-wide marketing

Overview
• Time-limited Q4 incentives & dealers discounts for new EVs
• County-wide marketing
• Only available at select dealerships in San Mateo County
• Started in 2018, repeated in 2019

Results
• 2018: 4 vehicle makes; 120 vehicles sold/leased
• 2019: 7 vehicle makes; 167 vehicles sold/leased
2019 EV Incentive Program Survey Results

HOW ESSENTIAL WAS THIS EV INCENTIVE PROGRAM IN YOUR DECISION OF GETTING AN EV?

- Very important: 46%
- Crucial in decision: 38%
- Slightly important: 12%
- Neutral: 2%
- Not at all important: 1%
- (blank): 1%

84% reported that the incentive was Very Important or Crucial

Time limited program creates urgency and accelerates action
EV Sales Uncertainties

Uncertainty Ahead

• April new vehicle sales down 53%
• Vehicle sales declined 40% during 2007-09 recession
• Vehicle sales may be increasing after shelter in place lifted in China
• Likely major reductions in state vehicle incentive programs

BEV adoption increases 8% per $1,000 purchase incentive*

*MIT/NREL study

California faces $54B budget deficit

Shrinking fossil fuel demand could hit California's cap-and-trade auction, experts say

Transportation electrification programs could see hit
Market Conditions: 2020 Survey

Motivators

- Pricing Of Vehicle: 32% (New), 33% (Used)
- Miles Per Charge: 25% (New), 22% (Used)
- Rebates / Incentives: 14% (New), 8% (Used)
- Convenient Charging Stations: 14% (New), 8% (Used)
- Environmental Factors: 15% (New), 10% (Used)
- Cost Of Use: 8% (New), 7% (Used)
- Maintenance Cost: 6% (New), 8% (Used)
- Reliability: 3% (New), 10% (Used)

Barriers

- Range / Run Out Of Battery: 36% (New)
- Lack of Convenient Charging Stations: 25% (New)
- Too Expensive: 24% (New)
- Maintenance Cost: 7% (New), 8% (Used)
- Reliability: 6% (New), 5% (Used)
- Charging Time: 5% (New), 2% (Used)
- Safety: 4% (New), 3% (Used)
- Lifetime Of Battery/ Condition: 4% (New), 18% (Used)

Range anxiety likely due to low familiarity
Market Conditions: Sales Mix

- ~5,800 total new EV sales in 2019 by San Mateo County residents
- ~16% of EVs purchased at dealers within SMC
- Median household income: $225,000
- Vehicle cost cap can limit incentive “free ridership”
Sales Volumes and MSRP

EV MSRP and Sales Volume

Sales

MSRP

Proposed $45K Cutoff
## New EV Program Options

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Timeframe</th>
<th>Eligible Purchases</th>
<th>Incentive Level</th>
<th>Estimated Max. Rebate Amount **</th>
</tr>
</thead>
</table>
| 1*             | Q4        | • All new EVs <$45K  
• In county and out of county sales                                                | Plug-in Hybrid: $700  
Battery Elec.: $1,000               | ~920 vehicles                      |
| 2              | Q4        | • All new EVs <$45K  
• In county and out of county sales  
• Tesla excluded                   |                                    | ~450 vehicles                     |
| 3 (existing program) | Q4      | • All new EVs <$45K  
• In-county purchase only                                                            |                                    | ~190 vehicles                     |
| 4              | Annual    | • All new EVs <$45K  
• In-county purchase only                                                            |                                    | ~750 vehicles                     |

*PCE Staff Recommendation

** Based on 2019 New vehicles sales by San Mateo County residents
Program Objectives & Mechanics

Core Objectives:
1. Increase uptake
2. Ensure additionality (i.e. limit free ridership)
3. Avoid exceeding budget (original proposal: $700k for new EVs, ~725)

Incentive design mechanics to consider:
1. Vehicle price cap
2. Geography (in-County or Out-of-County)
3. Dealership-only model
4. Vehicle Make
2020 Market Survey: Awareness

- Awareness & favorability are high
- Adoption is still low

Electric Vehicle

Aware: 88%
Familiar: 39%
Favorable: 78%
Would Consider: 51%
Now Use: 6%

When do you expect to purchase your next vehicle? (n=1,777)
- Not Sure: 12%
- I don't: 15%
- >1 Year: 49%
- <1 Year: 24%

(1-10 scale)
Income Distributions

Income Distribution - Teslas

- Under $100K: 13%
- $100K - $150K: 18%
- $150K - $200K: 15%
- $200K - $250K: 14%
- $250K+: 40%

Income Distribution - Non-Teslas

- Under $100K: 12%
- $100K - $150K: 18%
- $150K - $200K: 14%
- $200K - $250K: 15%
- $250K+: 41%